

Title (en)  
HEARING DEVICE WITH ADAPTIVE BINAURAL AUDITORY STEERING AND RELATED METHOD

Title (de)  
HÖRGERÄT MIT ADAPTIVER BINAURALER AUDITORISCHER LENKUNG UND ZUGEHÖRIGES VERFAHREN

Title (fr)  
DISPOSITIF D'AIDE AUDITIVE DOTÉ D'UN PILOTAGE AUDITIF BINAURAL ET PROCÉDÉ ASSOCIÉ

Publication  
**EP 3340655 A1 20180627 (EN)**

Application  
**EP 17204290 A 20171129**

Priority  
US 201615390417 A 20161223

Abstract (en)  
Disclosed is a hearing device and method of operating a hearing device in a binaural hearing system, the method comprising: receiving distal data from a distal hearing device; receiving an audio signal and converting the audio signal to a first microphone input signal and a second microphone input signal; and determining a beamforming scheme based on the distal data, the first microphone input signal, and the second microphone input signal, wherein determining the beamforming scheme comprises obtaining a zero-direction index, and wherein the beamforming scheme is based on the zero-direction index; and applying the beamforming scheme in a beamforming module of the hearing device.

IPC 8 full level  
**H04R 25/00** (2006.01)

CPC (source: CN EP US)  
**H04R 25/00** (2013.01 - CN); **H04R 25/405** (2013.01 - US); **H04R 25/407** (2013.01 - EP US); **H04R 25/552** (2013.01 - EP US); **H04R 25/554** (2013.01 - US); **H04R 2225/41** (2013.01 - CN); **H04R 2225/43** (2013.01 - US); **H04R 2225/51** (2013.01 - US); **H04R 2430/20** (2013.01 - EP US); **H04S 2420/01** (2013.01 - EP US)

Citation (search report)  
• [XY] US 8744101 B1 20140603 - BURNS THOMAS HOWARD [US]  
• [X] US 2011116666 A1 20110519 - DITTBERNER ANDREW [US], et al  
• [Y] US 2015230026 A1 20150813 - EICHFELD JAHN DMITRI [US], et al  
• [Y] NOAM R SHABTAI ET AL: "Generalized Spherical Array Beamforming for Binaural Speech Reproduction", IEEE/ACM TRANSACTIONS ON AUDIO, SPEECH, AND LANGUAGE PROCESSING, IEEE, USA, vol. 22, no. 1, 1 January 2014 (2014-01-01), pages 238 - 247, XP058045842, ISSN: 2329-9290, DOI: 10.1109/TASLP.2013.2290499  
• [A] MA CHANGXUE ET AL: "Binaural Auditory Steering Strategy: A Cupped Ear Study for Hearing Aid Design", AES CONVENTION 141; SEPTEMBER 2016, AES, 60 EAST 42ND STREET, ROOM 2520 NEW YORK 10165-2520, USA, 20 September 2016 (2016-09-20), XP040681014

Citation (examination)  
"Sound Capture and Processing: Practical Approaches", 17 August 2009, WILEY PUBLISHING, Chichester, ISBN: 978-0-470-31983-3, article TASHEV IVAN JELEV: "3.4.3 Directivity Pattern", pages: 74 - 75, XP055875413

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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3340655 A1 20180627**; CN 108243381 A 20180703; CN 108243381 B 20210817; JP 2018113681 A 20180719; US 10911877 B2 20210202; US 2018184214 A1 20180628

DOCDB simple family (application)  
**EP 17204290 A 20171129**; CN 201711406720 A 20171222; JP 2017240013 A 20171214; US 201615390417 A 20161223